

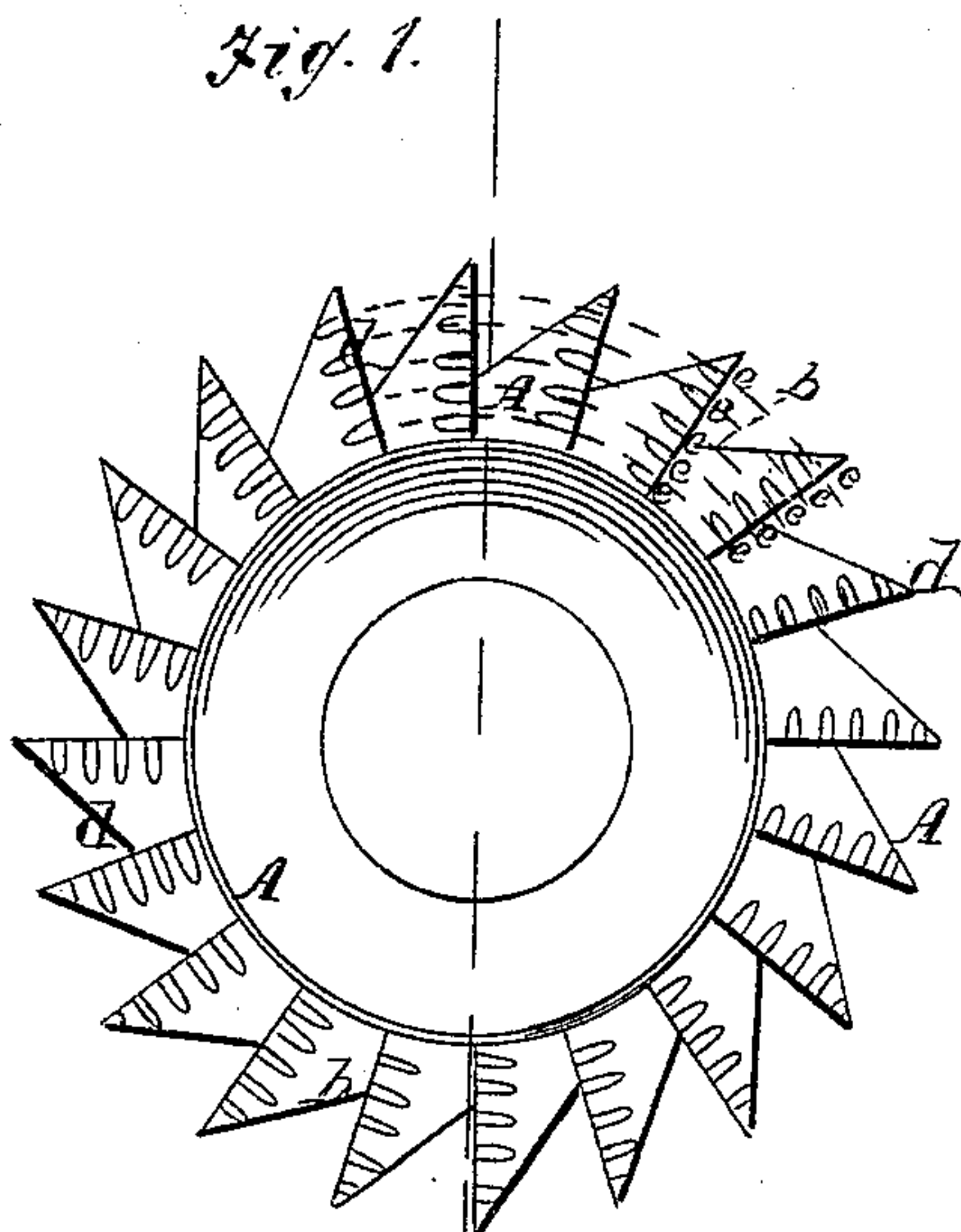
*Lutz & Reiss,*

*Milling Tool.*

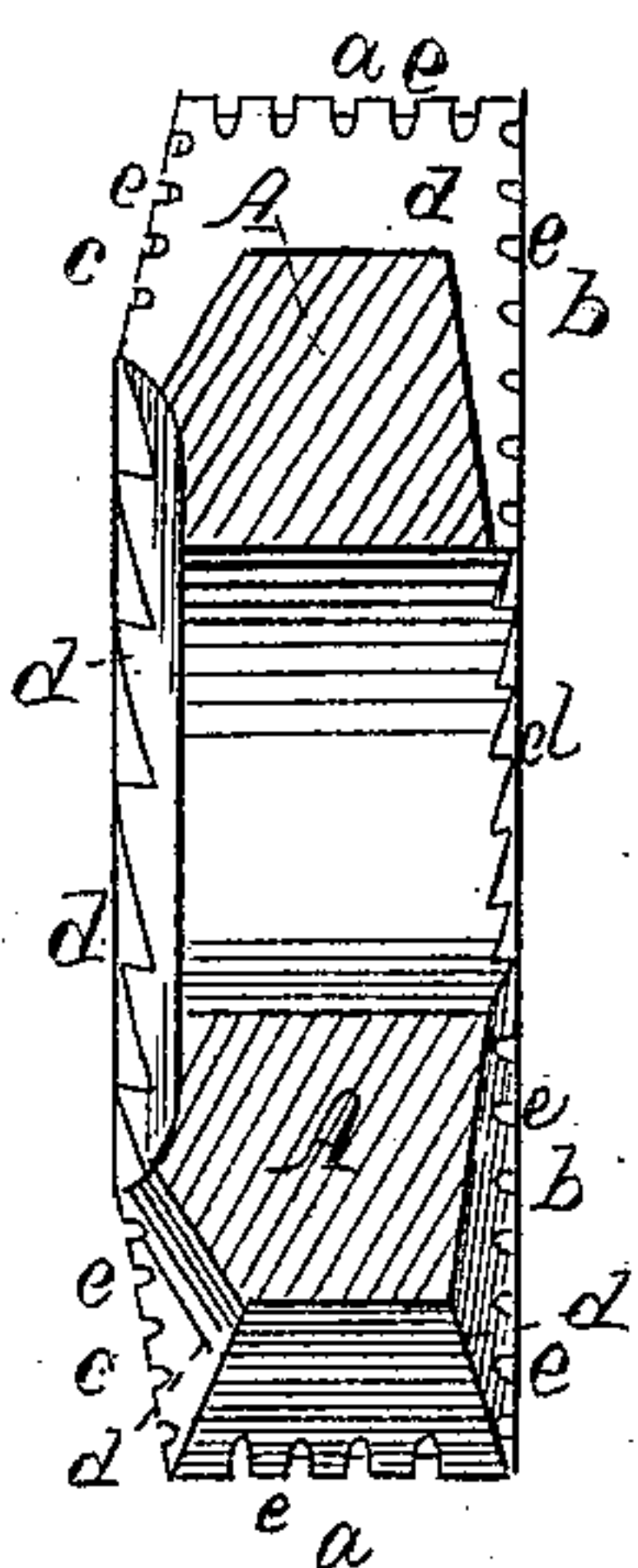
*No. 93,212,*

*Patented Aug. 3. 1869.*

*Fig. 1.*



*Fig. 2.*



*Witnesses.*

*Anna Morgan*  
*John P. Brooks*

*Inventors.*  
*A. J. Lutz & H. Reiss.*

*per* *Wm. H. [Signature]*  
*Attorneys.*

# United States Patent Office.

ALBERT J. LUTZ AND H. REISS, OF NEW YORK, N. Y.

*Letters Patent No. 93,212, dated August 3, 1869.*

## IMPROVED MILLING-TOOL.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that we, ALBERT J. LUTZ and H. REISS, of the city, county, and State of New York, have invented a new and improved Milling and Reaming-Tool; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

Figure 1 represents a side view of our improved milling-tool.

Figure 2 is a central section of the same.

Similar letters of reference indicate corresponding parts.

A, in the drawing, represents our improved milling-tool, which consists of a metallic disk, having cutting-blades on its periphery, which may be parallel or oblique to the axis of rotation, and with similar radial cutting-blades on one or both sides, the edges of which may be perpendicular to the edges of those on the periphery, or inclined thereto, as may be desired, and of all which cutting-blades the edges are notched, as

at *e e*, in the drawing, in such manner that the notches in one blade are more or less covered by, or in line with cutting-portions of the next blade, as indicated by dotted lines in fig. 1, so that the whole width of the blades will cut.

It is evident that the shavings can readily pass off through these notches, without retarding the progress of the blades. It is also evident that the same improvement may be applied to reaming-tools, on blades set on the inner edges of annular tools, and all other instruments by which plain, faced, cylindrical, or other bodies are to be milled on the inner or outer sides.

We claim as new, and desire to secure by Letters Patent—

The improved milling-tool herein described, as an article of manufacture.

A. J. LUTZ.  
H. REISS.

Witnesses:

FRANK BLOCKLEY,  
ALEX. F. ROBERTS.